

Rhysodine beetles in the Geneva collection II:
new species of *Yamatosa* and *Omoglymmius*,
descriptions of undescribed sexes
in other species, and some major
range extensions
(Coleoptera: Carabidae or Rhysodidae)

by

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With 14 figures

ABSTRACT

Yamatosa smetenorum, new species, is described from Nepal, and *Omoglymmius* (*s. str.*) *aristeus*, from New Guinea. The female of *Y. draco* and the male of *Rhysodiastes* (*Temoana*) *preorbitalis* Bell and Bell are described. A new key to Himalayan *Yamatosa* is presented. *Yamatosa draco* Bell and *Y. boysi* (Arrow) are recorded from Pakistan west of the Indus River, *Y. reitteri* Bell and Bell and *Omoglymmius* (*Orthoglymmius*) *crenatus* Bell, from Nepal, and *O. (s. str.) hiekei* Bell and Bell, from Sabah.

Since our first paper on the Rhysodine beetles in the Geneva Collection (BELL & BELL 1987), additional material, supplemented by specimens on loan from Biosystematics Research Institute, Ottawa, Canada, have given important new information about the Rhysodine faunas of the Himalaya, Borneo, and New Guinea.

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***Yamatosa smetanorum* sp. n.**

Type material. — HOLOTYPE male, labelled "NEPAL, Kathmandu District, Phulcoki, 2650 m, 21.IV.1982, A. & Z. Smetana" (MHNG). PARATYPES: one male, same data as paratype (BSRI); one female, labelled "NEPAL: Dist. Kathmandu, Phulcoki, 2400-2600 m, 28-30.IV.84, I. Löbl-A. Smetana" (MHNG).

Description. (Figs 1, 2, 4, 5, 6, 7). Length 6.8-7.0 mm; antennal segment II obtuse, stylet absent; head cordate, sides evenly rounded; anterior tentorial pits small, rounded; (Fig. 4) frontal grooves narrow, well-defined; eye reduced, with about 40 ommatidia (Fig. 2), slightly narrowed posteriorly; temporal lobes distinctly separated; mentum with 1 pair of labial setae and about 3 pairs of prelabials; mentum entirely impunctate.

Pronotum with median groove narrower than in related species; lateral margin distinctly sinuate near base; basal impression about 0.30 of length of pronotum, discal striae shallow, ending anteriorly near middle of length of pronotum; basal impression broad, containing flat, impunctate tubercle; marginal groove nearly complete, effaced only very near to anterior margin; precoxal carina absent.

Elytra shaped as in *Y. boysi* (Arrow); elytral setae limited to apex of Stria VII, absent from Striae II, IV; hind wings not checked (but probably vestigial in correlation with reduced eyes).

Male with metasternum, abdominal sterna I-III broadly, shallowly concave medially; metasternal punctures limited to lateral margins: both sexes with deep, oblique lateral pits on Sternum IV, those of male simple (Fig. 5), those of female with a small secondary pit anteromedially (Fig. 6); no trace of pits on Sternum V.

Anterior femur without ventral tooth or ridge in either sex; middle calcar of male tibia small, slender, directed distomedially; hind calcar (Fig. 7) of male oblique, angled proximally, distal end slightly lobate, calcar about 0.33 of length of tibia, much longer than that of *Y. boysi* (Fig. 8); spurs of middle, hind tibiae near equal.

The shape of the pronotum, the absence of punctures on the mentum, the deep, oblique lateral pits on Sternum IV in both sexes, and the secondary sexual characters will differentiate this species from its relatives. In addition, *Y. draco* and *Y. boysi* have the anterior tentorial pits oblique (Fig. 3), and the frontal lobes contiguous or nearly so.

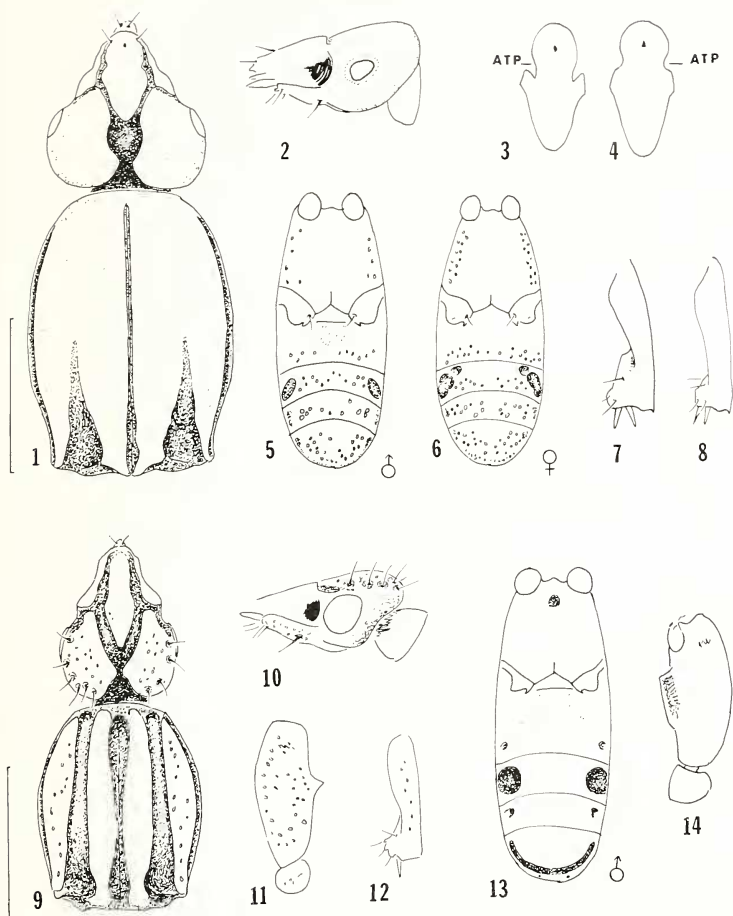
***Yamatosa draco* (Bell, 1977), description of female**

Similar to male in most respects, but metasternum and abdominal Sterna I-II not concave in midline; anterior femur without ventral tooth; calcars absent.

Both sexes of this species have a median line of punctures on the metasternum.

KEY TO *Yamatosa* OF THE HIMALAYA

1. Antennal segment XI with apical stylet; discal stria of pronotum extended nearly to anterior margin *Yamatosa arrowi* (Grouvelle)
- 1'. Antennal segment without apical stylet; discal striae extended anteriorly to middle of pronotum or slightly beyond 2
- 2 (1'). Marginal groove of pronotum absent except in basal 0.25; eye large, oval, deeper than long; male without tooth on anterior femur
..... *Yamatosa reitteri* (Bell)



FIGS 1-14.

FIGS 1, 2, 4, 5, 6, 7.

Yamatosa smetanorum sp. n.; 1. Head and pronotum, dorsal view; 2. Head, left lateral view (antenna omitted); 4. Median lobe of head, dorsal view, ATP= anterior tentorial pit; 5. Metasternum, abdomen, ventral view, male; 6. Metasternum, abdomen, ventral view, female; 7. Hind tibia, male. FIGS 3, 8. *Yamatosa boysi* (Arrow); 3. Median lobe of head, dorsal view, ATP= anterior tentorial pit; 8. Hind tibia, male. FIGS 9-12. *Omoglymmius* (*s. str.*) *aristeus* sp. n.; 9. Head and pronotum, dorsal view; 10. Head, left lateral view (antenna omitted); 11. Anterior trochanter, femur, male; 12. Hind tibia, male. FIGS 13, 14. *Rhysodiastes* (*Temoana*) *preorbitalis* Bell and Bell; 13. Metasternum, abdomen, ventral view, male; 14. Anterior trochanter, femur, male.

- 2'. Marginal groove complete; eye more or less reduced; femoral tooth present or absent 3
- 3 (2'). Mentum punctate medially; lateral pits of abdominal Sternum IV oblique; no pits on Sternum V; anterior tentorial pits rounded; anterior femur of male dentate 4
- 3'. Mentum impunctate medially; lateral pits of abdomen rounded; large pits on Sternum IV and small ones on Sternum V; anterior tentorial pits oblique; anterior femur of male not dentate *Yamatosa smetanorum* Bell and Bell
- 4 (3'). Eye moderately reduced, rounded, with about 100 ommatidia; metasternum punctate in midline; head rounded *Yamatosa draco* (Bell)
- 4'. Eye strongly reduced, more or less elongate, with about 50 ommatidia; metasternum impunctate in midline; head more or less inflated posteriorly *Yamatosa boysi* (Arrow)

***Omoglymmius (sensu stricto) aristeus* sp. n.**

Type material. HOLOTYPE male, labelled "PAPUA NEW GUINEA: Mainyanda, I. 1980, 25 km w Bulolo, W. G. Ullrich, 600 m" (MHNG). This locality is in Morobe Province.

Description. — (Figs 9-12) Length 5.5 mm; antennal segments 1-4 coarsely punctate; segments 5-10 very finely so; segment 11 impunctate, without stylet; head longer than wide; median lobe rather short, with a few minute punctures, lance-shaped, its tip obtusely pointed; frontal space broader than long, V-shaped, its lateral margins shallowly curved; medial angles obtuse, well separated; posterior-medial margin oblique; anterior-medial margin evenly curved; occipital angle indistinct; preorbital pollinose impression prominent, continued posteriorly as very short orbital groove (as in *O. trepidus*); antennal lobe separated from temporal lobe by short, moderately narrow antennal groove; temporal lobes each with 10-13 fine punctures, also with 4-6 larger punctures along margin, bearing 4-6 temporal setae; postorbital, suborbital tubercles absent; mentum densely punctate; eyes large, round.

Pronotum moderately elongate; length/greatest width 1.27, widest near middle; base moderately narrowed, apex more strongly so; lateral margins markedly curved; margin not sinuate anterior to hind angle; outer carina widest anterior to middle, where slightly wider than inner carina; medial margin of outer carina not sinuate near base; outer carina with 17-22 fine punctures; inner carina impunctate; marginal groove well-defined but not dilated; pronotum without setae; prosternum without precoxal carinae.

Elytron rather long, narrow; striae impressed; strial punctures coarse, round, pilose, diminishing in size posteriorly; intervals convex; transverse basal scarp glabrous; base of Stria 4 with longitudinal pilose scarp; Stria 4 with 1 seta near apex; Stria 7 with several setae near apex; metasternum entirely punctate; abdominal sterna densely punctate; male with deep semicircular lateral pits on Sternum 4; male with ventral tooth on anterior femur (Fig. 11); middle calcar scarcely evident; hind calcar triangular, with 2 minute denticles on anteriodistal margin (Fig. 12); female unknown.

This species is easily separated from other New Guinea species by the large number of temporal setae. The minute denticles on the middle calcar are also unique, although less easily observed. In form, and probably in relationships, it is closest to *O. trepidus* Bell and Bell, and *O. patens* Bell and Bell, which, however, have only 1 temporal seta.

The left anterior leg of the holotype is grossly deformed, possibly as a result of an injury to the pupa, so the description of the anterior leg is based on the right one.

Rhyzodiastes (Temoana) preorbitalis Bell and Bell, 1985, description of male.

Strongly similar to female, except for the presence of calcars, the lateral pits of the abdominal segments smaller, though in the same proportions as in the female (Fig. 13); ventral margin of anterior femur with sharp carina ending distally as sharp angle (Fig. 14); (femur of female with similar angle but without distinct carina); calcar of middle leg narrow, sharp, that of hind leg less narrow but shorter.

Description based on a male, labelled "THAILAND: Chiang Mai, Doi Inthanon, 2450 m, 9.XI.1985, D. Burckhardt-I. Löbl" (MHNG). There is an additional female from the same locality.

RANGE EXTENSIONS

Yamatosa draco (Bell, 1977)

2 males, labelled "PAKISTAN: Swat, s/Miandam, 2300 m, 10.V.1983, C. Besuchet-I. Löbl"; one female, labelled "PAKISTAN: Swat, Malam Jabba, 18.V.1983, C. Besuchet-I. Löbl". The species was previously recorded only from Bhutan (MHNG).

Yamatosa boysi (Arrow), 1942

10 males, 6 females, from PAKISTAN: Hazara, several localities, and dates, June, 1983, elevation 2400-2600 m, collected by I. Löbl (MHNG). This is the first record west of the Indus.

Yamatosa reitteri (Bell, 1977)

2 males, 6 females, NEPAL, from 2 localities, Khandbari District, above Sheduwa, 3050 m, and above Tashigaon, 3100 m, 2 dates in April, 1982, A. & Z. Smetana (BSRI). This is the first record of this species from Nepal.

Omoglymmius (Orthoglymmius) crenatus (Grouvelle, 1903)

1 male, NEPAL: Kathmandu District, Arun River at Num, 1500-1600 m; 10.IV.1982. Coll. A. and Z. Smetana (MHNG); also, 1 male, NEPAL: Taplejung District, Tamur R., between Mitilung and Dumhan, 15 September, 1983 (IAZ).

Omoglymmius (sensu stricto) hiekei Bell and Bell, 1982

2 females, SABAH: Mt. Kinabalu, 1500 m, May 24-25, 1987, coll. D. Burckhardt-I. Löbl (MHNG). This species was previously known from Luzon.

SOURCES OF MATERIAL

The following abbreviations designate collections cited in this paper:

MHNG Museum d'histoire naturelle, Geneva, Switzerland.

BSRI Biosystematics Research Institute, Ottawa, Canada

IAZ Institut für Allgemeine Zoologie, Mainz, Federal Republic of Germany.

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REFERENCES CITED

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